

Environmental Services
Earthmoving Permit Compliance/Inspections Activity – FY 2005 Supplemental Request

OMB Budgeting for Results Analysis
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SUMMARY

The Environmental Services Department has requested 19 additional FTEs at a cost of \$725,957 (annualized to \$1,048,334) for the Earthmoving Permit Compliance/Inspection Activity to improve the quality and number of earthmoving inspections conducted. This staff will allow the Department to increase its volume of earthmoving inspections from the current volume of 4,366 inspections by 736 in FY 2005 to 5,102 and double the total number of inspections in FY 2006 to 8,844. Of equal importance, the amount of time per inspection will increase, which will result in a higher quality inspection that is necessary to comply with U.S. Environmental Protection Agency's (EPA) deadline to meet Federal air quality standards related to dust control. The Board of Supervisors approval of this request will improve air quality in Maricopa County by reducing the level of dust in the air. OMB recommends that the Board of Supervisors approve the request.

BACKGROUND

In July 2002, Maricopa County was found to be in non-compliance with air quality standards related to dust pollution set forth in the 1990 Clean Air Act. In June 2004, the EPA indicated in a letter to the Arizona Department of Environmental Quality (ADEQ) that additional enforcement efforts were critical to achieve the necessary emissions reductions. By December 31, 2006, the State is required to demonstrate compliance with air quality dust control standards.

Within the Air Quality Program, Environmental Services has five activities that specifically address dust pollution. These are:

- Dust Control Earthmoving Permit Compliance/Inspections;
- Earthmoving Complaint Management;
- Dust Control Vacant Lots Permit Compliance/Inspections;
- Vacant Lots Complaint Management; and,
- Earthmoving Permit Enforcement.

In order to meet the EPA deadline, the Department has requested to hire 12 additional inspectors, four supervisors, and three administrative assistants to work proactively and directly on the Earthmoving Permit Compliance/Inspections Activity. These additional staff should conduct more than double the current number of inspections by FY 2006 and attain compliance with EPA air quality dust control standards, related to Earthmoving Permits.

This request is not the only action being taken by the Department to decrease the level of dust in the County. The Department is also preparing requests for its Earthmoving Permit Enforcement Activity and Vacant Lots Compliance/Inspections Activities.

ANALYSIS

Demand

Demand for the Earthmoving Permit Compliance/Inspections Activity is the total number of earthmoving inspections required. The Department calculates the demand from the number of earthmoving permits issued multiplied by the frequency of inspections:

- one inspection per year for “small” sites that are less than 10 acres; and,
- five inspections per year for “large” sites that are 10 acres or more.

The frequency of inspections is based on the Department’s best estimate of what is necessary to ensure compliance with EPA air quality requirements related to dust control.

The Department projects demand to increase by five percent based upon the average growth rate from fiscal years 2001 to 2004. This assumption is reasonable as population growth continues, which drives residential and commercial construction, which, in turn, drives the need for more earthmoving permits. The Department assumes the same percentage distribution of large and small size sites as in FY 2004.

Demand (Total number of earthmoving inspections required):										
FY 2001-02 Actual	FY 2002-03 Actual	FY 2003-04 Actual	FY 2004-05 Adopted	Supp. Request	Total Request	Variance (Total Request - FY 04 Act.)	% (Variance/ FY 04 Act.)	FY 2005-06 Projected	Variance (FY 06 Proj.- FY 05 Req.)	% (Variance/ FY 05 Req.)
7,408	8,297	8,301	8,716		8,716	415	5.0%	9,152	436	5.0%

Output

Output is the total number of earthmoving inspections conducted. The Department calculates output based upon:

- projected demand;
- the time it takes to perform an inspection on each site; and,
- the annual amount of productive hours for each inspector (1,400 hours).

In order to achieve compliance with EPA air quality standards, the Department needs to:

- increase the number of inspections; and,
- improve the quality of inspections.

The time spent on each inspection depends on both the quality of the inspection and the size of the site. The Department conducts two types of earthmoving inspections:

- A Level 1 inspection is a visual inspection of the site, where verbal warnings to site owners are used to enforce compliance to reduce the dust pollution. Level 1 inspections average approximately 1.8 hours for both large and small sites.
- A Level 2 inspection is a more thorough inspection process, in which the inspector assesses the site for compliance with the dust control plan, conducts compliance tests, collects data, and issues a formal report. A Level 2 inspection averages 1.75 hours for small sites and 3.75 hours for large sites.

In order to comply with the 80% compliance rate (the percentage of sites inspected found to be in compliance with EPA standards) required for the State Implementation Plan (SIP), the Department must perform more Level 2 inspections. These types of inspections should:

- increase property owners' compliance with EPA standards; and,
- lead to greater enforcement activities. (The Department is considering an additional request to hire one enforcement officer and two County Attorneys.)

In fiscal years 2001 through 2004, with only six inspectors, the majority of inspections were Level 1 inspections. In FY 2004, the majority of inspections were also performed on sites less than 10 acres. The Department projects to conduct 5,102 inspections in FY 2005 and 8,844 inspections in FY 2006. This translates to an increase in inspections conducted by 17 percent in FY 2005 and 73 percent in FY 2006. These projections assume that all inspections will be Level 2 inspections and a greater percentage of inspections conducted on large sites compared to previous years.

Output (Total number of earthmoving inspections conducted):										
FY 2001-02 Actual	FY 2002-03 Actual	FY 2003-04 Actual	FY 2004-05 Adopted	Supp. Request	Total Request	Variance (Total Request - FY 04 Act.)	% (Variance/ FY 04 Act.)	FY 2005-06 Projected	Variance (FY 06 Proj.- FY 05 Req.)	% (Variance/ FY 05 Req.)
5,179	6,282	4,366	4,366	736	5,102	736	16.8%	8,844	3,742	73.4%

Efficiency

Efficiency is the average cost per inspection, which would be \$229 in FY 2005 and a 67 percent increase from the previous year. This decrease in efficiency is the result of:

- Better quality inspections, since the inspectors will perform Level 2 inspections and inspect more large sites, both of which take more time and consequently, cost more money; and,
- Lost time spent training each inspector (two months), which results in reduced productive inspection hours and, consequently, reduced number of inspections.

Due to constraints in training these new inspectors to perform Level 2 inspections, the inspectors will be phased-in in three groups of four (four inspectors in October, January, and April).

In FY 2006, the cost per inspection is projected to decrease to \$186 (a 19 percent reduction from FY 2005) once the new inspectors are fully trained. This translates to a \$49 average cost increase from \$137 in the FY 2005 adopted budget to \$186 in FY 2006.

Efficiency (Average cost per earthmoving inspection):										
FY 2001-02 Actual	FY 2002-03 Actual	FY 2003-04 Actual	FY 2004-05 Adopted	Supp. Request	Total Request	Variance (Total Request - FY 04 Act.)	% (Variance/ FY 04 Act.)	FY 2005-06 Projected	Variance (FY 06 Proj.- FY 05 Req.)	% (Variance/ FY 05 Req.)
\$112	\$92	\$137	\$137	\$776	\$229	\$92	67.1%	\$186	(\$43)	-18.8%

Results

The department will evaluate the results of the new inspectors by reviewing:

- The percentage of the output versus the demand; and,
- The effectiveness of the inspections (the percentage of sites in compliance with EPA air quality dust pollution standards).
 - The percentage of sites in compliance is calculated by dividing the number of inspections in compliance by the total number of inspections performed.
 - An increase in the percentage of sites in compliance directly translates to a decrease in dust pollution in the County.
 - The Department is currently working on this measure and it is not included in the table below.

While 50 percent of the required earthmoving inspections were conducted in FY 2004, the majority of these inspections were Level 1 inspection on sites less than 10 acres. In FY 2005, the percentage of inspections conducted that are required is projected to increase by 17 percent from the previous year to equal 59 percent of the projected demand in FY 2005. In FY 2006, output is projected to reach 97 percent of demand, an increase of 65 percent. More importantly when compared to FY 2004, these results reflect Level 2 inspections and more large sites inspections, which are necessary to reduce the amount of dust pollution.

Result	FY 2001-02 Actual	FY 2002-03 Actual	FY 2003-04 Actual	FY 2004-05 Adopted	Supp. Request	Total Request	Variance (Total Request - FY 04 Act.)	% (Variance/ FY 04 Act.)	FY 2005-06 Projected	Variance (FY 06 Proj.- FY 05 Req.)	% (Variance/ FY 05 Req.)
Percentage of proactive inspections completed	69.9%	75.7%	52.6%	50.1%	8.4%	58.5%	8.4%	16.8%	96.6%	38.1%	65.1%

Expenditures

The department is requesting an increase of \$725,957 over the FY 2005 adopted budget. Total recurring expenditures (less one-time vehicle costs) equal \$570,957. This 95 percent increase over the adopted budget amount will pay for the 12 new inspectors plus supervisors and support staff. The annualized recurring cost of these new employees is \$1,048,334 in FY 2006. Total expenditures including the existing six inspectors are projected to be \$1,647,716 in FY 2006, which is a 41 percent increase from the FY 2005 total request and a 175 percent increase from FY 2004. These additional funds will allow the Department to meet 97 percent of the demand by FY 2006 with Level 2 inspections (resulting in more compliance) and ensure achievement of EPA's 80% upper limit compliance rate as stated in the SIP.

Expenditures:											
FY 2001-02 Actual	FY 2002-03 Actual	FY 2003-04 Actual	FY 2004-05 Adopted	Supp. Request	Total Request	Variance (Total Request - FY 04 Act.)	% (Variance/ FY 04 Act.)	FY 2005-06 Projected	Variance (FY 06 Proj.- FY 05 Req.)	% (Variance/ FY 05 Req.)	
\$580,410	\$578,764	\$599,382	\$599,382	\$570,957	\$1,170,339	\$570,957	95.3%	\$1,647,716	\$477,377	40.8%	

The \$616,292 total expenditure variance across fiscal years 2004 and 2005 is attributable to:

- The rate variance, which contributes to almost 84 percent of the total variance and is the result of:
 - more time spent performing Level 2 inspections;
 - more time spent on inspecting large sites; and,
 - lost productive inspection hours during training.
- The volume variance, which makes up 16 percent of the increase and is due to more inspections conducted.

The total expenditure variance of \$477,377 across fiscal years 2005 and 2006 is primarily due to the volume variance, where more inspections are conducted per inspector.

Funding

The Department will need to increase fees to fully fund the request. Based on the increase in expenditures, the Department roughly estimates an increase in Earthmoving Permit Fees from \$36 per acre to \$54 per acre. In comparison, Clark County, which currently has the most stringent measures in the country, has Earthmoving Permit Fees of \$117 per acre. Because a fee study must be conducted, approved, and implemented, the fee increase will not generate enough revenues to begin fully funding the new positions until FY 2006. However, in order to meet the EPA deadline, the Department is requesting a one-time \$725,957 use of funds from the accumulated Environmental Services Air Quality Fund (504) fund balance to pay for the new positions. The Environmental Services Air Quality Fund will end FY 2004 with an Unreserved Fund Balance of approximately \$3.1 million.

RECOMMENDATION

OMB recommends that the Board of Supervisors approve the following:

1. In accordance with A.R.S. §42-17106, the transfer of \$725,957 in expenditure authority (annualized impact \$1,048,334) from General Government (Department 470), General Government Grant Fund - General Contingency (249-4711) to Environmental Services (Department 880), Air Quality Fund (Fund 504) to allow Environmental Services to hire 19 Air Quality Inspection and support staff which will significantly improve the Department's ability to work proactively and directly on compliance and enforcement of the earthmoving fugitive dust program.
2. Authorize an exemption to the *Funded Position Policy* because non-recurring funding will be used to support staff positions. Temporary use of fund balance in this instance is warranted by the immediate need to comply with U.S. Environmental Protection Agency requirements and because the positions will be funded by new revenue from fees. If a recurring funding source for these positions is not secured, they will need to be eliminated and any current employees would have to be laid off unless an appropriation is made from the General Fund.
3. Direct the Department to complete a user fee analysis and obtain OMB concurrence of the proposed fees no later than December 31, 2004. This is necessary to ensure compliance with the *Budgeting for Results Policy* Guidelines, which requires annual review of fees to ensure that they recover the County's full direct and indirect costs. The intent of this analysis is to have new fees reviewed and approved by the Board of Supervisors to be effective no later than July 1, 2005. If the analysis is not completed by December 31, 2004, then the appropriation shall be rescinded and the funds transferred back.
4. Authorize the expansion of the Environmental Services vehicle fleet with the purchase of five vehicles at a cost of \$155,000. The funding to purchase these vehicles will come from the fore-mentioned expenditure authority request. Expenditures required to operate these vehicles will come from the budgeted operations funding.

REVENUE, EXPENDITURE, & STAFFING DETAIL

Revenue and Expenditure Detail:									
EXPENDITURES BY OBJ CODE									
OBJECT CODE	FY 2003-04 Actual	FY 2004-05 Adopted	Supp. Request	Total Request	Variance (Total Request - FY 04 Act.)	% (Variance/ FY 04 Act.)	FY 2005-06 Projected	Variance (FY 06 Proj.- FY 05 Req.)	% (Variance/ FY 05 Req.)
701 Regular Pay (1)	\$312,966	\$312,966	\$345,143	\$658,109	\$345,143	110.3%	\$962,275	\$304,166	46.2%
710 Overtime (1, 2)	3,995	3,995	25,446	29,441	25,446	636.9%	-	(29,441)	-100.0%
750 Fringe Benefits (1)	92,416	92,416	100,830	193,246	100,830	109.1%	288,425	95,179	49.3%
801 General Supplies	55,000	55,000	39,873	94,873	39,873	72.5%	142,310	47,437	50.0%
812 Other Services	8,427	8,427	18,750	27,177	18,750	222.5%	40,765	13,588	50.0%
820 Rent & Lease (3)	38,500	38,500	33,250	71,750	33,250	86.4%	105,000	33,250	46.3%
842 Travel & Educ (4)	45,600	45,600	17,760	63,360	17,760	38.9%	54,782	(8,578)	-13.5%
Miscellaneous Expenses	42,478	42,478	-	42,478	-	0.0%	54,159	11,681	27.5%
Total	\$599,382	\$599,382	\$570,957	\$1,170,339	\$570,957	95.3%	\$1,647,716	\$477,377	40.8%

Notes:

- 1 - Based on calculation of known salaries
- 2 - Assume 50% of all compliance costs
- 3 - Assume 200 sq ft/person
- 4 - Assume 75% of all compliance costs

Staffing:						Variance	%		Variance	%
	(# FTE's)	FY 2003-04	FY 2004-05	Supp.	Total	(Total Request -	(Variance/	FY 2005-06	(FY 06 Proj.-	(Variance/
Market Range Title		Actual	Adopted	Request	Request	FY 04 Act.)	FY 04 Act.)	Projected	FY 05 Req.)	FY 05 Req.)
Inspector Entry		6	6	12	18	12	200.0%	18	0	0.0%
Inspector Lead/Supervisor		0	0	4	4	4	0.0%	4	0	0.0%
AQ Environmental Program Mgr		1	1	0	1	0	0.0%	1	0	0.0%
Admin Ass't		2	2	3	5	3	150.0%	5	0	0.0%
Total		9	9	19	28	19	211.1%	28	0	0.0%